

GOVERNMENT OF THE DISTRICT OF COLUMBIA
Department of Energy and Environment

Green Building Advisory Council

Meeting Date: 2/01/2017

Meeting Location: DOEE, 1200 1st Street NE

Attendees: Anica Landreneau (HOK), Scott Pomeroy (DowntownBID), Carl B. Reeves (Council appointee), Molly Simpson (DOEE), Jay Wilson (DOEE), Bill Updike (DOEE), Alexis Goggans (DOEE), Marshall Duer-Balkind (DOEE), Sally Parker (DCPS), Zach Dobelbower (DGS), Eugenia Gregorio (Tower), Dave Epley (DCRA), Sandy Wiggins (BALLE), Cliff Majersik (IMT), Torri Beek (DCRA/DOEE)

Attendees via phone: Mark James (Urban Green), Anna Shapiro (DMPED), Lisa Mallory (DCBIA)

Main Points/Discussion

Introductions (All)

ANC Effort Update (Green Building Checklist) – Jay Wilson

- DOEE launched an ANC Green Ambassador Program to provide quarterly trainings on a variety of environmental topics
- In the first meeting, ANC members received training on Climate Ready DC. The following meeting's presentations were made on Green Building/Development.
- ANC members requested a checklist for sustainable development (see attached *Sustainable Development: A Resource for Advisory Neighborhood Commissions*)
- DOEE requests that the GBAC review checklist for recommendations and edits prior to publishing on DOEE website
- Group discussed opportunity to track ANC comments on development
- Recommendations include for ANC's to submit checklist prior to meeting with developers to encourage deeper green efficiency

Comprehensive Plan Discussion– Jay Wilson

- OP updating the Comprehensive Plan for the city, which was established in 2006 prior to the formation of DOEE
- Establishes land use policy for the next 20 years
- Prior update was in 2011, with revisions occurring every five years
- Public comment period will commence in late March
- Goal is to have the final plan adopted (requires Council, NCPC and Congressional approval) and fully implementable in the Spring of 2018
- Currently DOEE is working to provide comments, which will be reviewed alongside comments from other agencies
- Focus is on ensuring policies initiated since prior revision are included (Green Building Act, Sustainable DC Plan, etc.) as well as new plans & future initiatives

- Great opportunities for private developers to provide formal comments
- GBAC requests that DOEE follow up to provide summary of recommendations and identify areas for GBAC
- More information is available on the OP [Plan] DC website at <https://planning.dc.gov/page/plandc-amending-dc-comprehensive-plan>

GBAC Work Plan Discussion – Bill Updike

- Bill provided a follow up to the December 2016 meeting and reviewed the amended 2017-2019 GBAC Work Plan
- DOEE proposing a very strong Green Building Code, which will be one of the strongest in the nation.
- Some of the changes include:
 - Baseline mandatory energy code similar to a stretch energy code
 - ASHRAE 90.1 will be merged with Chapter 7 of ASHRAE 189.1
 - Code will be approx. 10% more efficient than national baseline code
 - Appendix Z developed, the Net Zero Energy Code. This will serve as an alternative compliance path for the baseline energy code.
 - Additional Energy Code alternative compliance paths include passive house certification (if it includes solar), Net Zero certification through ILFI, and Living Building Challenge certification (ILFI)
 - Green Construction Code alternative compliance paths include LEED, Enterprise Communities Criteria, ICC 700, Living Building Challenge
 - Envelope commissioning is included for buildings 50,000 SF and above
- Bill Updike has requested the GBAC support the Energy Conservation and Green Construction Codes with letter of support during public comment period
- Sustainable DC Plan to be updated to ensure the SDC targets for built environment and climate align with comprehensive energy and climate adaptation planning
- Incentive program analysis recently completed with DCRA--focusing on structural incentives such as priority permit review for net zero buildings. DOEE will continue to work to support high performance buildings through PACE and DCSEU programs
- Group discussed opportunities to foster greater GBAC, DOEE and Council collaboration and quantify economic benefits of reducing energy consumption
- GBA needs to be revised and a task force of private building stakeholders, including AOBA and GBAC, needs to be assembled in the summer of 2017
- Bill will send Work Plan to GBAC members requesting feedback and volunteers to assist with implementation. ***Please send final comments on Green Building Work Plan, as well as priority projects to Bill Updike, so the plan can be finalized in April of 2017.***

Roundtable Updates

Carl Reeverts- The Grant Application for Green Buildings and Historic Preservation received a lot of positive feedback from the Eastern Market community. However, the community thought the project does not have sufficient funding to succeed.

Sally Parker- DCPS working to hire consultants to launch a variety of projects, including Green Cleaning Project, Feasibility Study for alternative certifications to LEED, educational signage for modernized buildings, Sustainable DCPS Plan and Educational Checklist for parents.

Dave Epley- Torri Beek is a new hire working on solar policy for DOEE as well as plan review and technical assistance for DCRA.

Sandy Wiggins- Living Building Challenge one year certification is complete for the Alice Ferguson Foundation. Ended year with 115% net zero positive energy. ILFI provided feedback that their technical proposal was one of the best they've ever received.

Mark James- Knows of some good examples of opportunities to leverage public resources related to green benefits. Mark will follow up with Bill to provide some examples. Mark also shared that the net zero house is nearing completion. Mark will be inviting the GBAC to the upcoming open house.

Molly Simpson

- Currently finalizing recommendations from the single family and low rise residential green building working group. A three page summary will be released in the winter of 2017.
- Historic Building Sustainability Guidelines grant application period will end shortly, with project awarded 6 weeks later.

Marshall Duer-Balkind

- DOEE looking to launch a more formal public engagement period for Clean Energy DC. Director Wells has asked for the plan to be finalized Jan. of 2018
- 143 fines sent to buildings that did not submit 2015 building data
- Benchmarking deadline for 2016 is now April 3rd
- DOEE to launch website with visual map of benchmarking in the District soon
- Data quality algorithm has been developed to help clean benchmarking data
- DOEE also working to update fine structure for benchmarking

Bill Urdike - DCRA finalizing 3rd party review guidelines for Energy/Green Construction Code to increase staff capacity for outreach, training, etc.

Zach Dobelbower

- DGS working on formalizing MOU with UDC. UDC is working on a training program to foster greater green building innovation in the District. They are also working on developing guidelines for energy performance modeling. Today DGS held a building operation certifications training for 25 students. Howard and UDC were represented and two scholarships were awarded. Another training is scheduled for the Fall.
- DGS should be receiving 1st check from Demand Response Project (66K for 1 MW project), which when expanded to more buildings is projected to generate \$1M in revenue in the coming years.
- DGS also has an MOU with DOEE to create a public building portfolio plan for DGS buildings to be net zero by 2032. The MOU will be finalized in March/April.
- 8 MW of solar has been delivered in the last 9 months. 14 additional projects are expected to be completed this year. The average energy savings is near 20%.
- Smart Lighting and Control (IFP) RFP to be released in the next two weeks. Additional MOU on Feasibility Study for Community Solar in preparation for RFP to be released in the Spring (1-2 MW of solar)
- Fort Grable is under final design and will be the first net zero public facility in DC. Construction is scheduled to begin in 2017 but has been delayed.
- March 7th is the 10 year anniversary of GBA. When the GBA became active, there were less than 10 LEED projects, now there are more than 1,000. DGS/DOEE/DCRA hoping to write a press release to commemorate the 10-year anniversary
- Build Smart 2.0 to be released in February 2017

Cliff Majersik

- IMT just released a catalyzing efficiency report to assess how benchmarking data can be used to advance energy efficiency in the residential building sector. Focus has been on financing and working with vendors to reduce interest rates for buildings pursuing energy efficiency investments.
- Green Lease Leaders application due in February
- IMT working to publish case study on commercial buildings interested in re-financing their mortgage based on energy efficiency and solar investments
- Looking for multifamily home owners who would like to offer energy efficiency packages (Nest thermostats, LED lighting) for tenants

Scott Pomeroy

- Critical Infrastructure Breakfast TBH on March 16th.
- COG released proposal for how to utilize VW settlement funds to place EV charging stations in the District.

Date for next meeting: April 5, 2017

Location for next meeting: DOEE, 1200 1st Street NE, 5th Floor

Contact: william.updike@dc.gov

SUSTAINABLE DEVELOPMENT

A RESOURCE FOR ADVISORY NEIGHBORHOOD COMMISSIONS

BUILDINGS ARE AN INVESTMENT IN OUR COMMUNITIES.

They provide critical services, housing and create jobs. The ANC serves a critical role in the evaluation of development projects to ensure that new and significantly renovated projects benefit the neighborhood.

Below is a list of possible opportunities available to developers that would benefit the community. Development teams should incorporate these strategies in order to achieve greater environmental and sustainable performance. Additional resources and references are available at doee.dc.gov.



CLIMATE & RESILIENCE

Build developments that anticipate the impacts of climate change and help achieve the actions proposed in the [Climate Ready DC Plan](#).

- Locate developments outside of flood-prone areas and at least 1.5' above the 100-year floodplain elevation.
- Incorporate district energy, resilient electric [microgrids](#) and renewable energy to reduce greenhouse gas emissions.
- Cool roofs, trees, light colored pavement, and green space should be incorporated to reduce [urban heat island](#) impacts and save lives.

GREENING THE BUILT ENVIRONMENT

In the District, large development projects must meet the Green Building Act and DC Green Construction Code. This is similar to LEED Silver certification.

High performance buildings that exceed that baseline move the District closer to net-zero energy construction by 2032, provide healthy indoor environments for our residents, and increase the vibrancy and walkability of our neighborhoods.

Projects should be built to achieve one of the following certification levels:

- ↑ **LIVING BUILDING CHALLENGE** Comprehensive program for buildings that move beyond being less bad to become truly "regenerative"
- ↑ **NET-ZERO ENERGY CERTIFIED** Buildings that generate as much energy as they require with on-site technology such as solar panels.
- ↑ **PASSIVE HOUSE INSTITUTE US (PHIUS)** Program that supports highly insulated and extremely energy efficient buildings
- ↑ **ENTERPRISE GREEN COMMUNITIES** (affordable residential development only) Incorporate credit 5.2b: Nearing Net-Zero - to create net-zero "ready" buildings that could be energy neutral by installing additional generation or battery storage
- ↑ **LEED CERTIFICATION V4 AT THE GOLD LEVEL OR HIGHER** Holistic green building program that supports energy efficiency and healthy indoor air quality

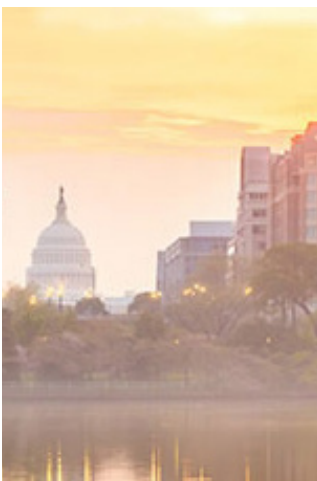
ENERGY EFFICIENCY

Buildings that use less energy reduce pollution, conserve resources, and support economic development. Incorporate strategies to achieve minimum efficiencies of 10% or more beyond baseline building code.

- [Integrated design techniques](#) and energy modeling save construction cost and should be used throughout each phase of the design process.
- Incorporate automatic lighting controls and daylight harvesting along with building automation systems to save energy and reduce light pollution.
- Incorporate innovative technology including: fuel cell, CHP micro turbine, geothermal, wastewater heat recovery, variable refrigerant flow heat pumps, and other technology to reduce the building's energy use.



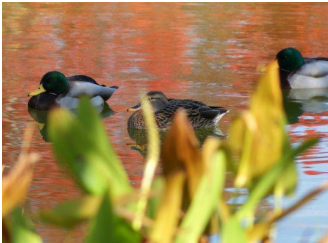
Owners reported ROI improved by 19.2% for existing building green projects and 9.9% for new construction.



Learn more about Green Buildings at doee.dc.gov

SUSTAINABLE DC GOALS FOR BUILDING AND DEVELOPMENT

Cut energy use 50%
Cut GHG emissions 50%
Cut GHG by 80% by 2050
Increase renewables by 50%
Cut water use by 40%
Net-zero energy new buildings
Retrofit 100% to meet NZE



Shade trees capture stormwater, provide habitat for wildlife, and reduce the urban heat island effect.



SOLAR & CLEAN ENERGY

Renewable energy increases resilience, reduces greenhouse gas emissions, and decreases pollution. DC has among the best financials for solar in the U.S. because of the Renewable Portfolio Standard bill.

- Maximize opportunities for roof and wall mounted solar panels. Incorporate solar to supply a minimum of 3% of the building's energy use.
- Incorporate energy sourced from wind, solar, biogas, or other renewable energy sources.
- Measure, report, and take actionable steps to reduce the building's carbon emissions including the purchase of clean power.

WASTE MANAGEMENT

In 2015 the District of Columbia disposed of over 115,000 tons of waste. Reducing waste reduces pollutions in our neighborhoods, streams and rivers, creates jobs, and saves money.

- Conveniently locate recycling facilities. Include adequately sized trash and recycling bins on each floor, and built-in trash and recycling bins in residential units to encourage recycling.
- Anticipate waste reduction requirements and design loading docks to have adequate space for future waste stream separation including recycling and organic composting.
- Install smart-sensors on dumpsters to track and minimize truck routes, reduce trash pick-up, and maximize operational savings.

WATERSHED & HABITAT

Green infrastructure captures stormwater and reduces pollution and reduce flood risks while also helping keep neighborhoods cool.

- Exceed minimum green area ration (GAR) and stormwater retention requirements and install voluntary green infrastructure to generate and sell Stormwater Retention Credits.
- Maximize opportunities to capture street runoff including engineered tree pits, bioretention facilities with curb cuts for roadway runoff, and permeable pavement.
- Landscape with native plants that support pollinator species and diverse natural habitats.
Increase tree canopy by providing adequate structural soil volume and planting large shade trees.

WALKABLE & BIKABLE COMMUNITIES

Promote walkable, bike able, transit oriented development that helps to reduce GHG emissions.

- Check out DDOT's MoveDC Plan for strategies to increase neighborhood connectivity.

FINANCING & INCENTIVES

DOEE provides many incentives to help developers take reduce first costs and maximize operational savings.

DCSEU: Provides financial incentives, no cost upgrades, and technical assistance

PROPERTY ASSESSED CLEAN ENERGY (PACE): Funding for energy efficiency improvements and clean energy

RIVERSMART: Rebates for rain gardens, trees, rain barrels, pervious pavement and more

RIVERSMART REWARDS: Earn discounts on stormwater fees on the property's water bill by reducing stormwater runoff.

STORMWATER RETENTION CREDIT TRADING PROGRAM: Earn revenue by installing green infrastructure that protects rivers and provides other benefits.

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★ ★ ★ DEPARTMENT
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